

## REMARKS

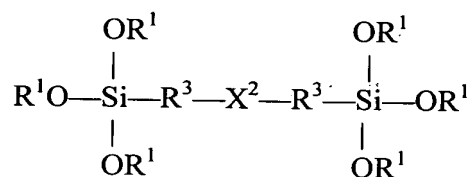
The present application is a continuation prosecution application (CPA) of U.S. Application No. 09/356,926 filed July 19, 1999. By the present preliminary amendment, the specification is amended to correct a typographical error; claims 1, 9, 10, 12 and 13 have been amended; and claims 7, 8, 11 and 18-38 have been cancelled. A **Version with Markings Showing Changes Made** is attached. Support for the claim amendments may be found in original claims 7, 8 and 11. It is believed that these changes do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested.

In response to the Office Action mailed on March 26, 2002 in the above-referenced application, Applicants request reconsideration of the patentability of the claims in view of the Amendment of the claims and the Declaration Under 37 C.F.R. 1.132 submitted herewith and the following remarks.

Claims 1-16 and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Poutasse et al. (U.S. Patent No. 5,622,782), Brown et al. (U.S. Patent No. 6,071,566), and Bishop (U.S. Patent No. 5,393,535). The Examiner noted in the most recent Office Action that the Applicants appear to have presented evidence that the use of the bis-silyl aminosilane A-1170 as identified in the Application results in unexpected results over the disclosures of Poutasse, Brown and Bishop. However, the Examiner asserted that the unexpected results described in the specification were not commensurate with the claimed invention as the claims encompass compositions of much greater breadth than compositions of bis-silyl aminosilanes of the form of compound A-1170.

These rejections are traversed and reconsideration is respectfully requested in light of the Amendment and the Declaration under 37 C.F.R. 1.132 of Dr. Wim J. van Ooij.

It is well established that the objective evidence of nonobviousness must be commensurate in scope with the claims. *See, e.g., In re Hyson*, 453 F.2d 764, 172 USPQ 399 (1972); *In re Tiffin*, 448 F.2d 791, 171 USPQ 294 (1971) (*per curiam*). The claimed subject matter as amended is commensurate in scope with the evidence offered by way of the Dr. van Ooij declaration, and, thus, the declaration, in conjunction with the experiments in the specification, is sufficient to rebut the PTO's *prima facie* case. As amended the presently claimed invention is limited to bis-silyl aminosilanes of the formula:



wherein:

-each  $\text{R}^1$  is individually chosen from the group consisting of: hydrogen,  $\text{C}_1$ - $\text{C}_{24}$  alkyl and  $\text{C}_2$ - $\text{C}_{24}$  acyl;

- each  $\text{R}^3$  is individually chosen from the group consisting of: substituted aliphatic groups, unsubstituted aliphatic groups, substituted aromatic groups, and unsubstituted aromatic groups; and

- $\text{X}^2$  is either:



-wherein each  $\text{R}^4$  is hydrogen; and

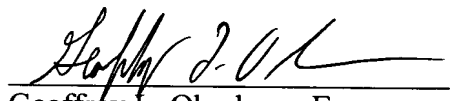
- $\text{R}^5$  is chosen from the groups consisting of: substituted and unsubstituted aliphatic groups, and substituted and unsubstituted aromatic groups.

The present specification and the Declaration of Dr. van Ooij present data demonstrating that the addition of bis-silyl aminosilanes of the above formula in a mixture

with vinyl silane provides unexpected corrosion performance and solution stability. Applicants have provided examples of the presently claimed invention utilizing bis-silyl "mono" aminosilanes as well as bis-silyl diaminosilanes. As amended herein, the claims of the present amendment are limited to mixtures comprising vinyl silanes and bis-silyl aminosilanes, wherein the bis-silyl aminosilane is either a bis-silyl "mono" aminosilane or a bis-silyl diaminosilane. Thus, Applicants have presented evidence demonstrating that the claimed invention is commensurate in scope with the evidence offered in the present specification and the declaration of Dr. van Ooij. Therefore, the Examiner's rejections that the claimed invention is not commensurate in scope with the showings of evidence has been overcome. Reconsideration is respectfully requested.

It is believed that the above response represents a complete response to the Examiner's rejections under 35 U.S.C. § 103, and places the present application in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully submitted,



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**VERSION WITH MARKINGS SHOWING CHANGE MADE**

**In the Specification:**

Please amend Page 10, line 26 as follows:

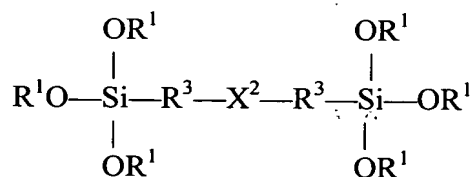
--and bis-(trimethoxysilylpropyl)ethylene diamine--

**In the Claims:**

Please cancel claims 7, 8, 11 and 18-38.

Please amend claims 1, 9, 10, 12 and 13 as follows:

- 1. (Amended) A method of treating a metal surface, comprising the steps of:
- (a) providing a metal surface, said metal surface chosen from the group consisting of:
- a metal surface having a zinc-containing coating;
- zinc; and
- zinc alloy;
- and
- (b) applying a silane solution to said metal surface, said silane solution having at least one vinyl silane and at least one bis-silyl aminosilane, wherein said at least one vinyl silane and said at least one bis-silyl aminosilane have been at least partially hydrolyzed[.], and wherein the bis-silyl aminosilane comprises:

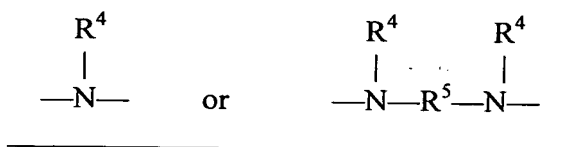


**wherein:**

-each R<sup>1</sup> is individually chosen from the group consisting of: hydrogen and C<sub>1</sub>-C<sub>24</sub> alkyl;

- each R<sup>3</sup> is individually chosen from the group consisting of: substituted aliphatic groups, unsubstituted aliphatic groups, substituted aromatic groups, and unsubstituted aromatic groups; and

-X<sup>2</sup> is either:



-wherein each R<sup>4</sup> is hydrogen; and

-R<sup>5</sup> is chosen from the groups consisting of: substituted and unsubstituted aliphatic groups, and substituted and unsubstituted aromatic groups. --

-- 9. (Amended) The method of claim [8] 1, wherein each R<sup>1</sup> is individually chosen from the group consisting of: hydrogen, ethyl, methyl, propyl, iso-propyl, butyl, iso-butyl, sec-butyl[,] and ter-butyl [and acetyl].--

-- 10. (Amended) The method of claim [8] 1, wherein each R<sup>3</sup> is individually chosen from the group consisting of: C<sub>1</sub> - C<sub>10</sub> alkylene, C<sub>1</sub> - C<sub>10</sub> alkenylene, arylene, and alkylarylene.--

-- 12. (Amended) The method of claim [8] 1, wherein R<sup>5</sup> is chosen from the group consisting of: C<sub>1</sub>-C<sub>10</sub> alkylene, C<sub>1</sub>-C<sub>10</sub> alkenylene, arylene, and alkylarylene.--

-- 13. (Amended) The method of claim 1, wherein said bis-silyl aminosilane is chosen from the group consisting of: *bis*-(trimethoxysilylpropyl)amine, *bis*-(triethoxysilylpropyl)amine, and *bis*-(triethoxysilylpropyl)ethylene diamine.--